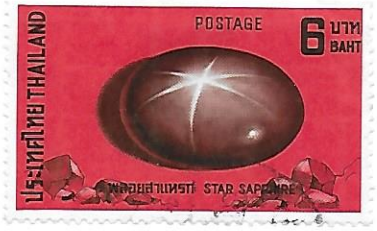


Minerals on Stamps

Fred Haynes

Topical (or thematic) stamp collecting allows one to merge hobbies, connect a career with philately, or perhaps initiate a second career vicareously through stamps. The thematic options are basically endless, and the room for personal imagination and creativity is boundless.

For me, a retired geologist with an interest in mineral collecting, the thematic topic of minerals on stamps made perfect sense as an opportunity to combine my scientific and collecting interest in minerals with the fun of stamp collecting. Besides it is hard to collect minerals in the dead of winter in western New York. Topical stamps are also generally more affordable than some of the minerals and take up infinitely less space. They don't require cleaning and seldom break when you are moving or re-displaying them.

In this one-frame exhibit I offer just a few of the ways minerals on stamps can be organized and collected. Again the options are endless.

By country – often sets (Kenya, Botswana) --- pages 2-3
By mineral –Sphalerite – pages 4
African Gemstones – page 5
By color – Oh, let's say purple - pages 6-8
On First Day covers – United States issues – page 9
Special Specimens – The US "Postage Stamp Tourmaline" - page 10
Combination stamps and Cover (Canada) – page 11
On Maxicards – page 12
Let's not forget rocks! - page 13
2014 – International Year of Crystallography – page 14
Mining (Namibia, South Africa, Canada, etc.) - page 15
Really, there are no rules !! - page 16

KENYA

Gypsum

Trona

Kyanite

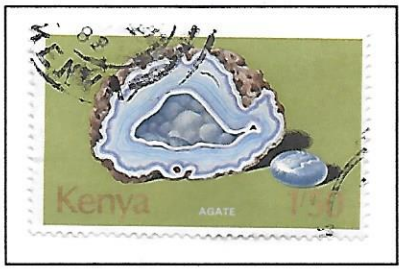
Amazonite

Galena

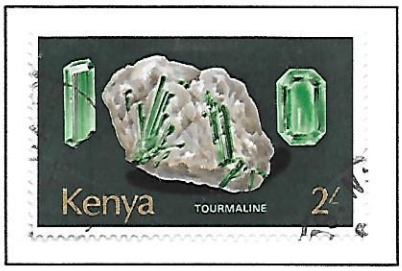
Petrified Wood

Fluorite

Amethyst



Agate



Tourmaline

Beryl (Aquamarine)

Rhodolite Garnet

Corundum (Sapphire)

Corundum (Ruby)

Grossular Garnet

BOTSWANA

Amethyst

Agate- Botswana pink

Quartz

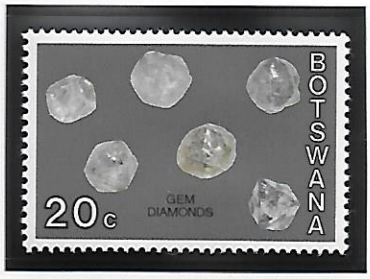
Copper Nickel

Moss Agate

Agate

Stilbite

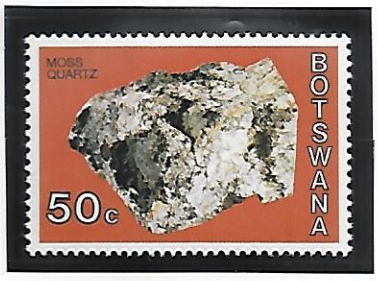
Banded Marble



Diamonds

Chrysotile

Jasper



Moss Quartz

Citrine

Chalcopyrite

Sphalerite (Zinc Sulfide – ZnS)

Szfalerit сфалерит สังกะสี

φαλερίτη Sfalerit Esfalerita

Hungary

Bulgaria

Thailand

Greece

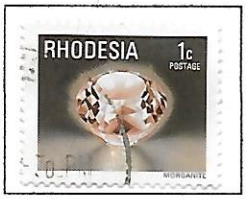
Yugoslavia

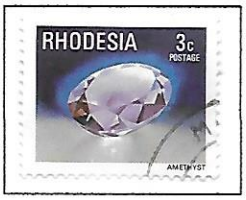
Peru

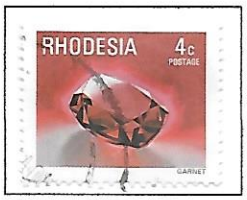
Located in the outback of Australia and discovered in 1883, zinc is still being mined in what is arguably the world's largest and richest zinc-lead ore body.

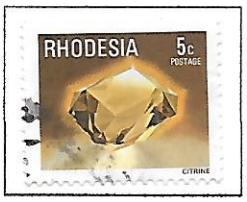
Sphalerite forms isometric-hextahedral crystals like those depicted on this stamp from Germany

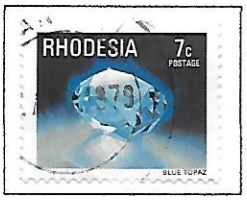
AFRICAN GEMSTONES

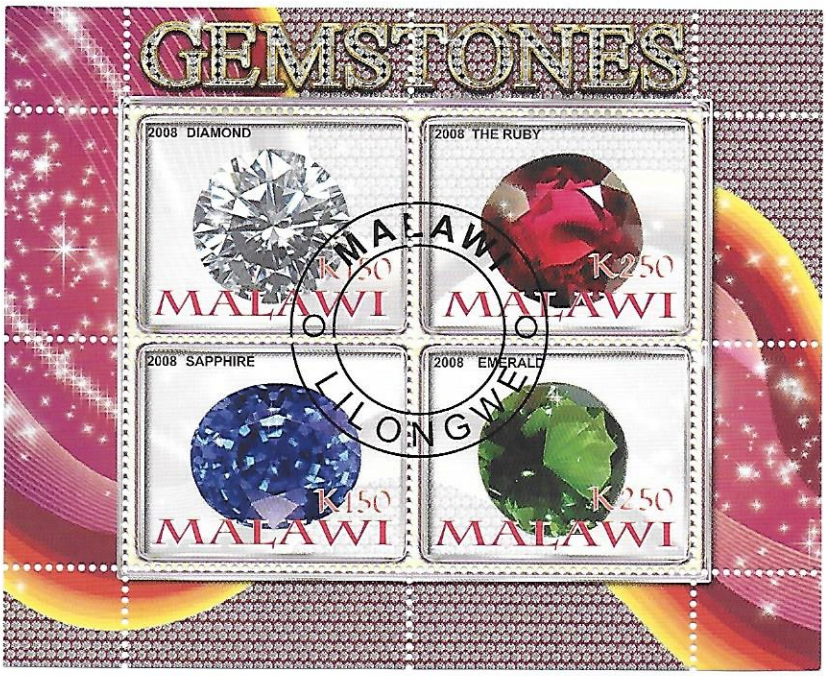


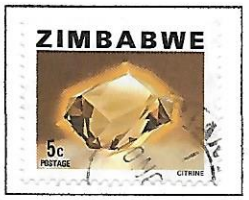


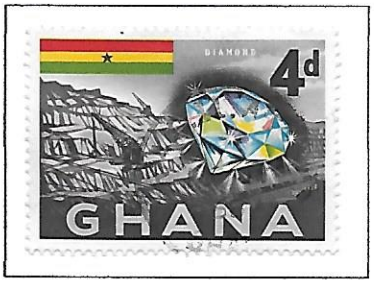


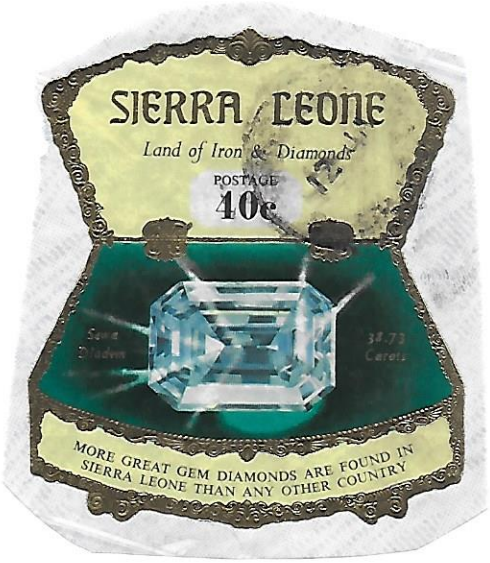












SIERRA LEONE
TREASURE OF SIERRA LEONE 50.65 carats
AIRMAIL
75c
AIRMAIL
MORE GREAT GEM DIAMONDS ARE FOUND IN SIERRA LEONE THAN ANY OTHER COUNTRY

Purple Minerals Majesty

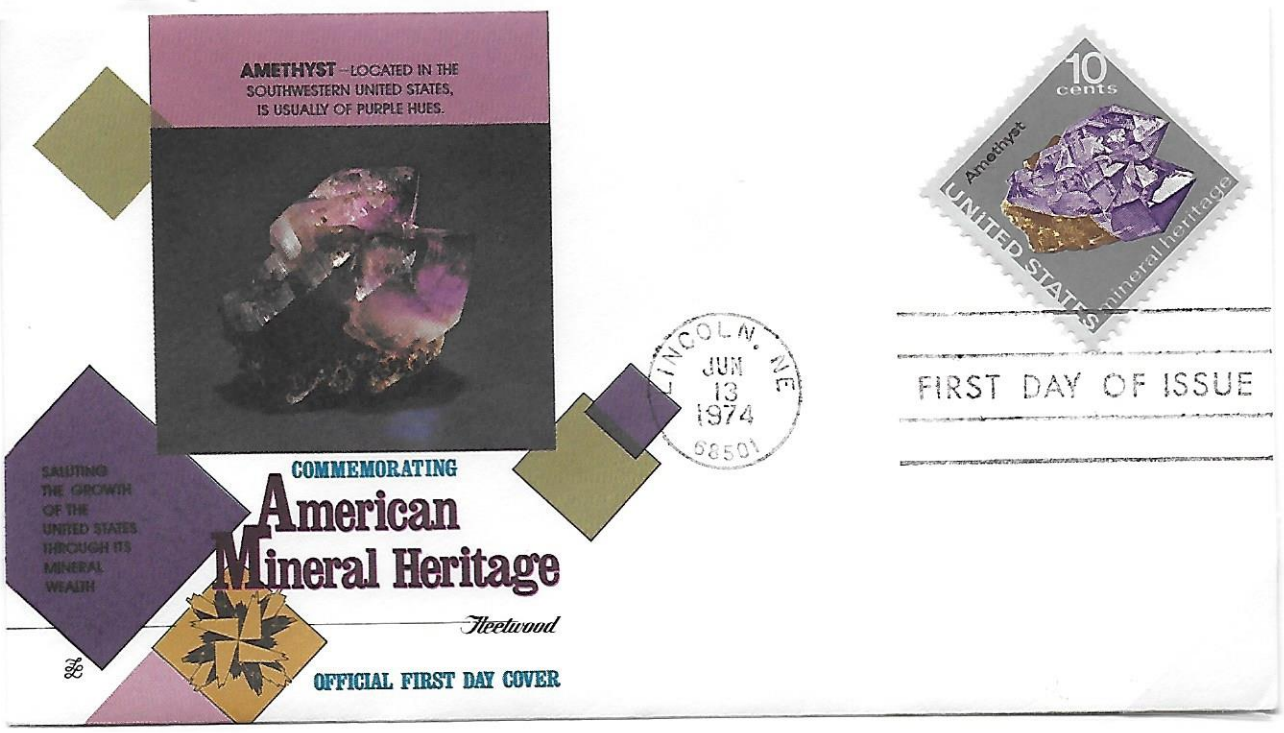
Since the days of the Roman Empire, purple has been the color of royalty. As a combination of red and blue, purple is not a spectral color and therefore lacks a defining spectral wavelength. However, that has not prevented people from claiming purple to be their absolute favorite color. Women build their wardrobe around their purple dresses, folks paint their bedrooms purple, gardeners plan their seasonal blooms from tulips to iris to petunias, and yes mineral collectors must have plenty of purple in their displays. Fortunately they have some wonderful choices from which to choose.

In this exhibit, purple minerals are seen through the eyes of postage stamps. Offerings from a number of countries depicting a number of different minerals are displayed. Accompanying each grouping is a brief description of the mineral , its chemistry, and a bit about its importance.

Amethyst

Germany

Switzerland



Amethyst was one of four minerals featured in a set of 4 stamps issued by the United States in 1974. The stamps were placed on sale in Lincoln, Nebraska during the National Gem and Mineral show with the first day ceremony held at the State Fair Grounds.

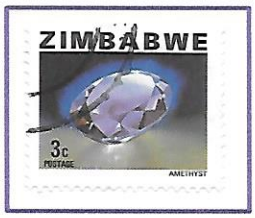
Purple Minerals Majesty - Amethyst

By far the most common and most popular purple mineral is amethyst. Simple clear quartz (SiO_2) is colored to various shades of purple when small amounts (< 20 ppm) of iron (Fe) replace Si when the quartz is naturally exposed to ionizing irradiation. The smaller iron atom leads to lattice distortions that effect light passage imparting the color variation. With a hardness of 7, amethyst makes a wonderful gemstone as well as colorful mineral speimen.

Amethyst is found on all continents and has been featured on stamps from many countries.

Botswana

Rhodesia



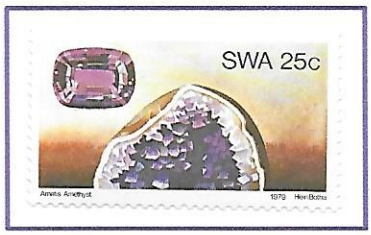
Zimbabwe

Kenya

Russia

Amethyst comes from the ancient Greek word "methystos" which means intoxiated. It was believed that drinking from an amethyst drinkard protected one from become drunk!

Germany



Southwest Africa

Azerbaijan

Brazil

New Zealand

United States

Purple Minerals Majesty

Bornite

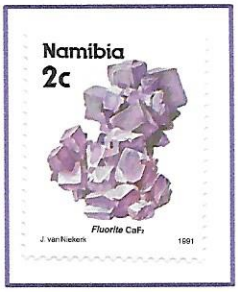
Zambia

Bornite is a copper sulfide mineral. Due to its brilliant blue to purple iridescence it is often referred to as peacock ore. Cu_5FeS_4 is an important copper mineral along with chalcopyrite in many of the world's porphyry copper deposits.

Fluorite

Flourite (CaF_2) is probably the most useful of the purple minerals. Cubic in form, fluorite is used as a flux in smelting, as an additive to glass and enamels, in optics, and for generating hydroflouric acid. It is also a key ingredient in most of today's toothpastes.

Thailand



Namibia

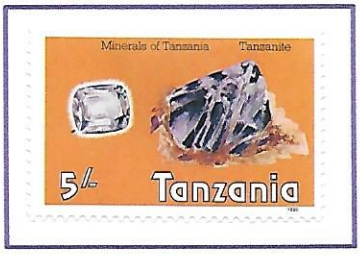
Algeria

Tourmaline

United States

This boro-silicate mineral comes in many different colors. Purple gemmy tourmaline is called siberite and is ususally elbaite in composition.

Tanzanite

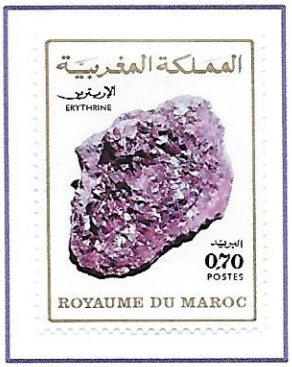


Tanzania

Tanzanite is the violet-purple varietal form of the calcium silicate mineral zoisite. A small amount of vanadium in the lattice causes the color change. As the name implies, tanzanite was discovered in Tanzania, in the foothills to Mt. Killimanjaro. To this date, it has not been found elsewhere.

Erythrite

Germany



Morocco

Erythrite is a secondary hydrated cobalt arsenate mineral with the chemical formula ($Co_3(AsO_4)_2 \cdot 8H_2O$). Although well formed crystals are rare, the pink-purple bloom of erythrite crusting on a primary cobalt mineral like cobalite can be uniquely pretty.

UNITED STATES commemoratives on cover

On June 13, 1974, the United States celebrated "Our Mineral Heritage by issuing a set of four 10 cent stamps. The diamond design set featured petrified wood from the Petrified Forest of Arizona, tourmaline from San Diego County, CA, rhodocrhosite from the Sweet Home Mine in Colorado, and amethyst from Due West, SC.

In 1992, with the postal rate now 29 cents, the United States issued a second set of commemorative mineral stamps. Once again they featured specimens from the Smithsonian Institute: azurite from Bisbee, AZ, native copper from the Keweenaw Penisular of Michigan, variscite from Lander County, NV, and wulfenite from the Red Cloud Mine near Yuma, AZ.

The Postage Stamp Tourmaline

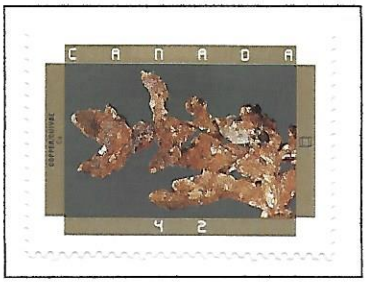
On June 13, 1974, the USPS issued a block of 4 mineral stamps, each depicting a specimen on exhibit at the Smithsonian Institute in Washington D.C.

Almost immediately the mineral world labeled the San Diego County watermelon tourmaline specimen as "The Postage Stamp Tourmaline".

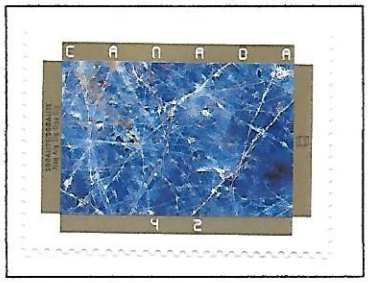
Above is the pen and ink drawing of the specimen by Wendell Wilson which was used by Leonard F. Buckley in the designing of the stamp.

The stamps were placed on sale in Lincoln, Nebraska during the 1974 National Gem and Mineral show with the first day ceremony held at the State Fair Grounds.

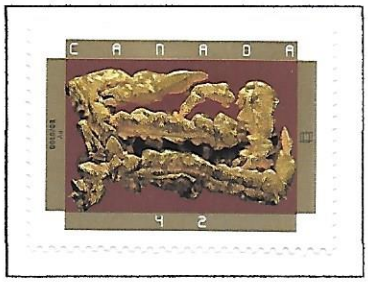
CANADA commemoratives and First Day cover



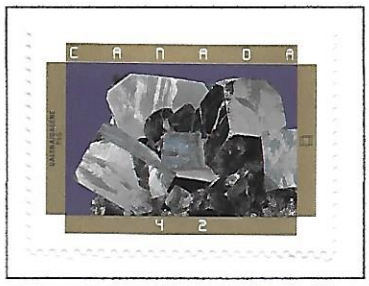
Native Copper
Cap D' Or, Nova Scotia



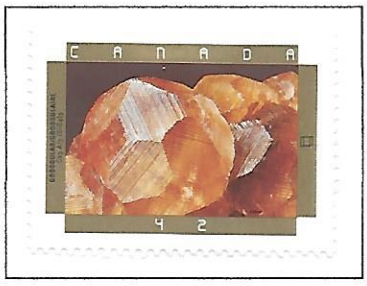
Polished Sodalite
Princess Mine, Bancroft, ONT



Native Gold
Klondyke Distric, Yukon Terr.



Galena
Flamboro Quarry, Wentworth, ONT



Grossular Garnet
Jeffrey Mine, Asbestos, Quebec

Day of Issue
Canada Post Corporation

Jour d'émission
Société canadienne des postes

In September 21, 1992, Canada issued a set of five mineral stamps to honor the 150th anniversary of the Geological Survey of Canada. The set, featuring five Canadian minerals, was released with a First Day ceremony in the Whitehorse Mining District of the Yukon Territories

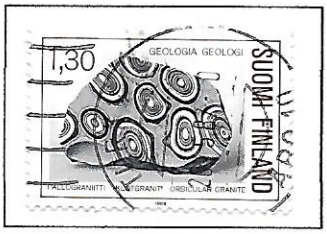
SWITZERLAND Maximum Cards

Fluorite (CaF_2) is a simple halide mineral that crystallizes in isometric cubic habit. However, octahedral forms like those on this stamp and maxicard are also common.

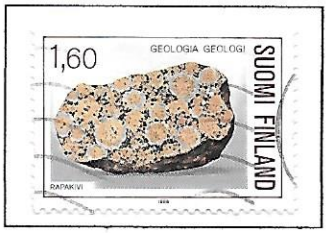
Titanite ($CaTiSiO_5$) is a titanium-bearing silicate mineral that foms monoclinic, sometimes gemmy ,crystals. It is found in igneous rocks and in metamorphosed calcium bearing rocks called skarns.

ROCKS on stamps

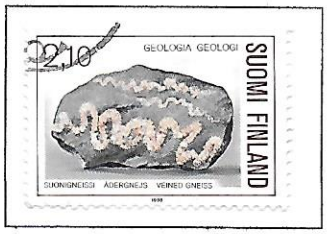
FINLAND



Orbicular Granite

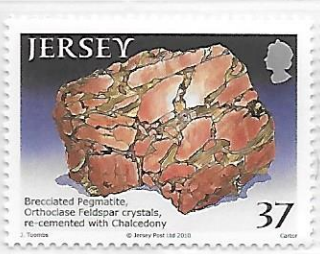


Rapakivi Granite

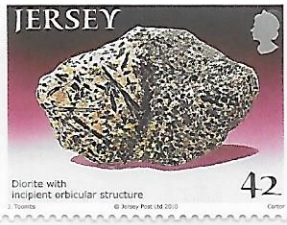


Veined Gneiss

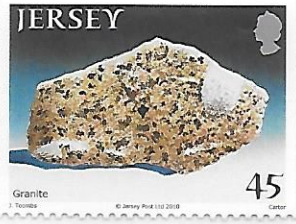
JERSEY



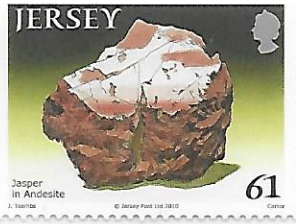
Brecciated Pegmatite



Orbicular Diorite



Granite



Jasper

Conglomerate

AFARS & ISSAS

Diabase (dolerite)

Olivine Basalt

HONG KONG

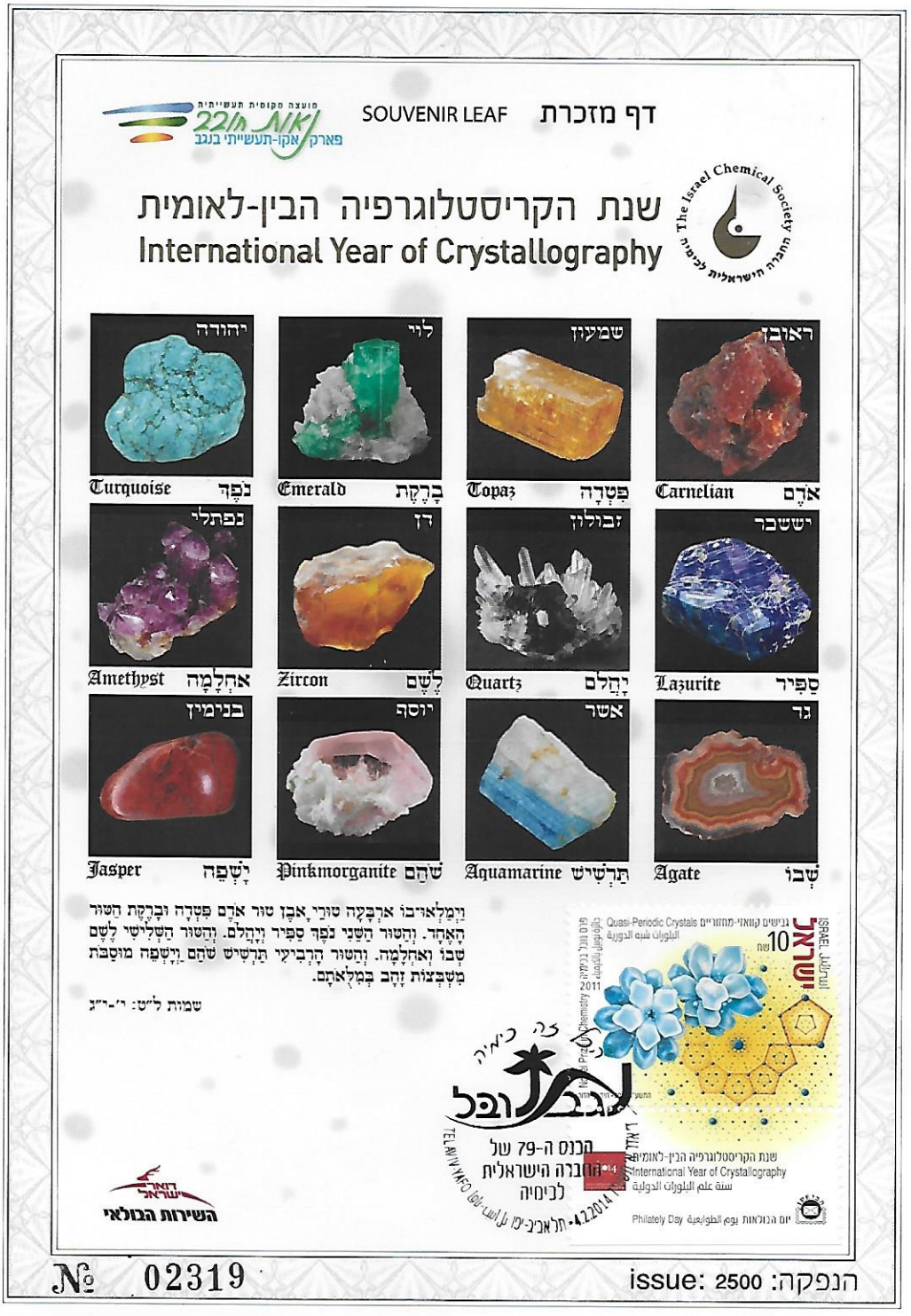
Siltstone

Conglomerate

Volcanic Tuff

Granite

2014 – International Year of Crystallography



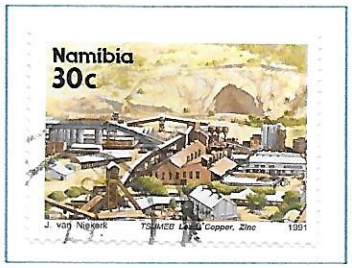
№ 02319

issue: 2500 :הנפקה

The United Nations declared 2014 as the International Year of Crystallography to celebrate the 100th year anniversary of X-ray crystallography and to emphasize the importance of crystallography in the modern world. A number of countries issued postage stamps to commemorate the UN proclamation and many depicted mineral crystals and forms. This "souvenir leaf" from Israel featuring a single stamp and twelve minerals highlights an interesting topical subset of mineral stamps.

MINING

Alluvial Diamonds



Tsumeb – Pb, Cu, Zn

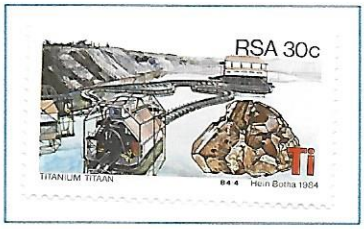
Rosh Pinah - Zinc

Rössing Uranium

Manganese

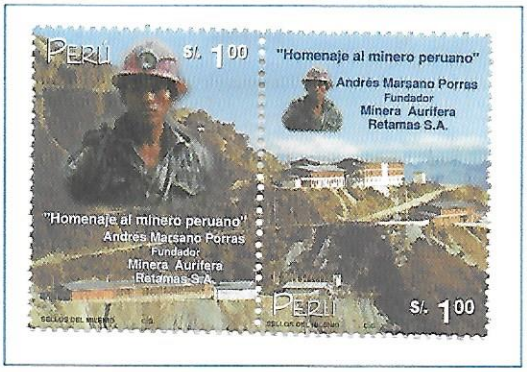
Chromium

Vanadium

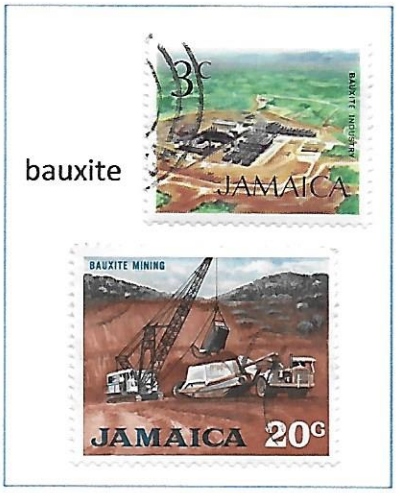


Titanium

Salt



Retamus Gold Mine



bauxite

GOLD

Oil Sand

Cobalt, Silver

TIN

Manganese

SZFALERIT · NAGYLÁPAFŐ
GREENOCKIT KALCIT
MAGYAR POSTA 60
ΕΛΛΑΣ HELLAS
RHODESIA
PRO PATRIA 1959
10 HELVETIA
MAGYAR POSTA 1,20
Brasil 1,30
PORTUCALE
10 cents
Rhodochrosite
UNITED STATES
2C DDR
Malachit
New Zealand
5c
Kenya
RHODOLITE GARNET
UGANDA
SUOMI FINLAND
Azurite Cu(CO3)2(OH)2
Kenya
BOTSWANA
2c
ESMERALDA
Топаз
2к
УРАЛЬСКИЕ САМОЦВЕТЫ 1965
ПОЧТА СССР
Tourmaline
UNITED STATES
mineral heri
PRO PATRIA 1961
10 HELVETIA
DDR

Мінерали України
Кварц
(гірський кришталь,
мармароський діамант)
SiO_2
Карпати
Сірка самородна
S
Прикарпаття
Топаз
$Al_2(F,OH)_2$ [SiO_4]
Волинь
Берил
$Be_3Al_2[Si_6O_{18}]$
Волинь
Око тигрове
(кварц з амфібол-азбестом,
сидеритом і магнетитом)
переважно SiO_2
Криворіжжя
α–керченіт
$Fe_3^{2+}Fe_6^{3+}(OH)_6[PO_4]_6 \cdot 18H_2O$
Крим
УКРАЇНА 1.90
УКРАЇНА 1.50
УКРАЇНА 2.00
УКРАЇНА 4.85
УКРАЇНА 3.30
УКРАЇНА 2.20
4 823027 412862